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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,883	02/08/2002	Satoshi Kume	011775	6620
23850	7590	02/25/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			HARAN, JOHN T	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/067,883	Applicant(s) KUME ET AL.	
	Examiner John T. Haran	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed on 12/23/03. The double patenting rejection is withdrawn in light of the terminal disclaimer filed on 12/23/03.

Terminal Disclaimer

2. The terminal disclaimer filed on 12/23/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent issuing from application 10/067,828 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "for heat-sealing said tubular packing material transversely together with a fluid" is indefinite. Does the term fluid refer to fluid held in the container? Also the current wording appears to indicate that the fluid held in the container aids in forming the seal which is appears contrary to the specification. It appears the phrase should - - for heat-sealing said tubular packing material, filled with a fluid, transversely together - -. It is also noted the phrase "for making a container shaping a packing material" should read - - for making a container by shaping a packing material - -. It is also noted that the phrase "wherein one of the first and second

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pressing member including" should read - - wherein one of the first and second pressing member comprising - -.

Claim 1 is also indefinite because the claims refer to a high frequency heating mechanism and to a high frequency coil. It appears both terms are referring to the same element and it is suggested to refer to the element as a high frequency coil throughout the claims.

Additionally in claim 1, the phrase "the ridge being capable of pressing a central portion of a sealed zone having two rounded and narrowed right and left sides" is indefinite it does not appear from the figures that the ridge presses a central portion of a sealed zone but rather the end portions of the sealed zone. It appears applicant is trying to claim that the ridge is located in the center of the portion of the action face defined by the high frequency coil and that the pressure exerted by the ridge results in a sealed zone have two seams with rounded and narrowed sides. It is suggested to amend the phrase to indicate such as - - wherein a ridge containing a curved portion is so formed on a central portion of the action face of the high frequency heating coil so that the pressure exerted by the ridge package material results in a sealed zone having two seams with rounded and narrowed sides - -.

Also the terms "on the outer side on the container's interior side" and "the outer side on the cutting side of the high frequency coil" are indefinite and confusing. It appears Applicant is attempting to specify that the groove is formed on a portion of the action face on the outside of the high frequency coil and the flash portion is formed in a portion of the seal zone located inside of the high frequency coil. It is suggested to

amend the claim 1 and 3 accordingly to clarify where the groove and flash portion are located relative to the high frequency coil.

Additionally clarification is requested as to whether the flash portion is part of the action face or part of the seamed zone of the packing material. It appears the flash portion is not part of the action face or the apparatus but is part of the seamed zone of the packing material and that the apparatus merely need be capable of allowing a flash portion to form. The claims have been treated accordingly in this action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 3 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (EP 0 990 587 A2) in view of Kume et al (EP 0 979 723 A2).

Hayashi teach a high-frequency heat-sealing apparatus comprising, as shown in Figs. 3 and 4, paired openable-and-closable pressing members composed of a pressing member 23 (sealing jaw) equipped with a high-frequency coil (22), and a pressing member 25 (opposing jaw) made of a rigid rubber 24 (paragraph [0020]). Hayashi disclose, "The invention is characterized in that a ridge shaped to contain a partial curve is so formed on the action face of the high-frequency coil as to press the central portion of the sealed zone on the two right and left sides where the width of the sealed zone is rounded and narrowed." (paragraph [0023]). The heat-sealing apparatus also includes

a flash portion for the molten thermoplastic formed adjacent to the outer side of the cutting side of the high-frequency coil (see element 33; Figure 3).

The heat-sealing apparatus of Hayashi fails to disclose in combination with the flash portion a groove formed on the action face adjacent to the outer side on the container's interior side of a sealed zone.

Kume et al also teach a heat-sealing apparatus comprising paired openable-and-closable pressing members composed of a pressing member 3 (sealing jaw) equipped with a high-frequency coil (2), and a pressing member 5 (opposing jaw) made of a rigid rubber (4). In combination with a ridge (11), in the sealing jaw 3 there is formed a groove (16) capable of forming a synthetic resin bulge (15) adjacent to the outer side of a sealed zone on a container's interior side (Figure 6).

In view of Kume et al, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a groove capable of forming a synthetic resin bulge adjacent to the outer side of a sealed zone in the heat-sealing apparatus of Hayashi as providing a groove adjacent to the outer side a high frequency coil improves the fluidity of the molten resin of the packing material being sealed by guiding the flow of resin into the groove to provide protection from cracking.

As to claim 3, see paragraph [0028] of Hayashi, which discloses providing a band-shaped magnetic member.

As to claim 4, see paragraph [0023] and Figure 7 of Hayashi, which disclose the ridge to be one continuous ridge that traverses over the whole area of the longitudinal direction of a sealed zone.

As to claim 5, see again paragraph [0023] of Hayashi, which defines the ridge to be arcuate.

As to claim 6, see paragraph [0014] of Kume et al, which defines the groove to be arcuate in cross section having a depth smaller than one half of its width.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (EP 0 990 587 A2) in view of Kume et al (EP 0 979 723 A2) as applied to claim 1 above, and further in view of Iwano et al (EP 0 730 946 A2).

Neither of the two references applied in the rejection above, appear to suggest an inclined action face so that the interval of the paired pressing members when pressed gradually broadens as it goes toward the groove.

In EP 0 730 946 A2, Iwano et al teach a heat-sealing device for liquid-filled tube comprising paired openable-and-closable pressing members composed of a pressing member 24 equipped with a high-frequency coil (2) and a pressing member 23 including pressing pads (34 and 35). As diagrammed in Figure 5, pressing member (24) includes a pressing face comprising an upper sealer (44) portion divided into a primary sealing portion (51), secondary sealing portion (52) and tertiary sealing portion (53), wherein the secondary sealing portion is inclined at a predetermined angle so that when the pressing members (23 and 24) are closed, the secondary sealing portion is so inclined as to gradually recede from the forward end face of pad (34) and the ridge.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include an inclined sealing portion to the pressing members of the heat-

sealing apparatus as taught by the references as combined above so that the paired pressing members when pressed, gradually broaden towards the groove to further aid in directing the flow of the molten resin and/or liquid from the sealed tube into the groove and away from being trapped by surface irregularities between the ridge and groove therein protecting against faulty seals.

Response to Arguments

8. Applicant's arguments filed 12/23/03 have been fully considered but they are not persuasive.

Applicant correctly indicated that neither Hayashi nor Kume alone teach all of the elements of claim 1 but did not make any arguments that addressed the combination of the teachings of Hayashi and Kume to arrive at the claimed apparatus. The combination of the teachings of Hayashi with Kume result in the claimed apparatus and there is ample motivation to do so.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John T. Haran** whose telephone number is **(571) 272-1217**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "JTH", is positioned above the printed name.

John T. Haran
Examiner
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